

**What is claimed is:**

1. A protein having fructosyltransferase activity, which exhibits at least 65% amino acid identity, as determined by the BLAST algorithm, with the amino acid sequence of SEQ ID No. 1 or 11, or a part thereof having at least 15 contiguous amino acids which are identical to the corresponding part of the amino acid sequence of SEQ ID No. 1 or 11.
2. A protein according to claim 1, exhibiting at least 75% amino acid identity with the amino acid sequence of SEQ ID No. 1 or 11.
3. A protein according to claim 1, exhibiting at least 85% amino acid identity with the amino acid sequence of SEQ ID No. 1 or 11.
4. A protein according to claim 1 which, in the presence of sucrose, produces an inulin having  $\beta(2-1)$  linked D-fructosyl units and/or a levan having  $\beta(2-6)$  linked D-fructosyl units and/or fructo-oligosaccharides.
5. A protein according to claim 1 which is a recombinant protein.
6. A nucleotide sequence encoding a protein according to claim 1.
7. A nucleic acid construct comprising the nucleic acid sequence of claim 6, operationally linked to an expression-regulating nucleic acid sequence.
8. A recombinant host cell containing one or more copies of the nucleic acid construct according to claim 7.
9. A process of producing a fructosyltransferase, comprising culturing a host cell according to claim 8 or a *Lactobacillus* strain containing one or both fructosyltransferases according to claim 1 in a culture medium, and recovering the protein from the culture medium or the cell free extract.
10. A process of producing an oligosaccharide or polysaccharide of interest, using a protein according to claim 1.

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11. A chemically modified fructan, which is obtained by 3,4-oxidation, 1- or 6-oxidation, phosphorylation, acylation, alkylation, hydroxyalkylation, carboxymethylation, amino-alkylation of one or more anhydrofructose units of a fructan containing a degree of polymerization of at least 100, preferably at least 1000 units.
- B1* 12. A probiotic or symbiotic composition containing a *Lactobacillus* strain capable of producing an inulin, a levan or fructo-oligosaccharides according to claim 10 and optionally a glucan.
13. A process of improving the microbial status in the mammalian colon comprising administering an effective amount of a *Lactobacillus* strain capable of producing an oligosaccharide or polysaccharide.
- B2* 14. A process of improving the microbial status of the mammalian colon comprising administering an effective amount of an oligosaccharide or polysaccharide produced according to claim 10.

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B3.